

## Liverpool John Moores University

Title: INFRASTRUCTURE AND SERVICES  
Status: Definitive  
Code: **6114COMP** (121276)  
Version Start Date: 01-08-2021

Owning School/Faculty: Computer Science and Mathematics  
Teaching School/Faculty: Computer Science and Mathematics

Team	Leader
Alessandro Raschella	Y

**Academic Level:** FHEQ6  
**Credit Value:** 20  
**Total Delivered Hours:** 55  
**Total Learning Hours:** 200  
**Private Study:** 145

### Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	22
Practical	22
Tutorial	11

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Report into the management of large networks	50	
Report	AS2	Report on the challenges in deploying network services	50	

### Aims

*To explore the network environment in modern large organisations and appreciate the complexity of the deployed infrastructure.*

*To understand the complex interactions between network services and the holistic approach that must be adopted to strike a balance between utility and security.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Analyse the composition of large organisational networks and the challenges they are faced with
- 2 Demonstrate advanced knowledge of network operations and management and the key services that are required
- 3 Assess existing and emerging network services and explain their potential impact on the underlying infrastructure
- 4 Evaluate the range of threats that face network services and understand the potential approaches to mitigate, manage, or overcome them

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Management of Large Networks	1	2
Deployment of Network Services	3	4

## Outline Syllabus

*Overview of network infrastructure: Deployment and composition of large networks. Addressing, naming, and routing protocols and schemes. Network management approaches and tools.*

*Networked services: Fundamental networked services, Networked persistent storage, Remote service provisioning and management, Support for complex userbase*

## Learning Activities

Students will participate in lectures, tutorials, and practical lab sessions.

## Notes

Modern large networks are vastly complex infrastructures that require constant management in order to support the complex and ever-evolving range of services and applications that are being deployed. This module will look at the effective management and operation of networks and the tools and techniques that can be employed to support this. It will also closely examine the range of services that are being operated in these network environments and the opportunities and challenges that they introduce.